REMARKS

The claims have been amended to more clearly define the invention as disclosed in the written description. In particular, claim 11 has been cancelled, while claims 8 and 9 have been amended for clarity.

The specification as filed has been amended on pages 2-3 to provide support for the language in claims 8 and 9.

Applicants believe that the above change answers the Examiner's 35 U.S.C. 101 rejection of claims 8 and 9, and that these claims are now statutory.

The Examiner has rejected claims 1-3 and 7-11 under 35 U.S.C. 102(b) as being unpatentable over U.S. Patent Application Publication No. 2005/0015803 to Macrae et al. in view of U.S. Patent Application Publication No. 2002/0083210 to Harrison et al. The Examiner has further rejected claims 4 and 5 under 35 U.S.C. 103(a) as being unpatentable over Macrae et al. in view of Harrison et al., and further in view of U.S. Patent Application Publication No. 2003/0236918 to Manor et al. Furthermore, the Examiner has rejected claim 6 under 35 U.S.C. 103(a) as being unpatentable over Macrae et al. in view of Harrison et al., in view of Manor et al., and further in view of U.S. Patent 5,734,589 to Kostreski et al.

The Macrae et al. publication discloses systems and methods for providing real-time services in an interactive television program guide application.

The Harrison et al. publication discloses message parsing in message processing systems.

Claim 1 of the subject invention includes:

"A device for recording information on a record carrier, said device comprising:

recording means for recording marks representing digitally encoded real-time information, including video information, encoded according to a predefined recording format;

an input unit for receiving a data stream constituting an enhanced user program, the data stream comprising the real-time information and application data objects, at least one subset of the application data objects constituting data for providing to a user at least one interactive application while rendering the real-time information;

message means for extracting messages from the data stream, the messages containing the application data objects;

parsing means for generating application control information; and

control means for storing the messages in a message file separate from the real-time information as a series of the messages for the program, and for storing the application control information in a message info file, the application control information including accessing information for accessing the messages in the message file."

The Examiner has conceded that Macrae et al. fails discloses "message means for extracting messages from the data stream, the messages containing the application data objects, parsing means for generating application control information; and

control means for storing the messages in a message file separate from the real-time information as a series of the messages for the program, and for storing the application control information in a message info file, the application control information including accessing information for accessing the messages in the message file.".

The Examiner now states that Harrison et al. teaches "message means for extracting messages from the data stream, the messages containing the application data objects" and indicates the abstract and paragraphs [0006], [0010] and [0013].

Applicants submit that the Examiner is mistaken. In particular, the noted sections of Harrison et al. state:

> "[0006] One aspect of the present invention provides a method of parsing, in a message parser of a message processing system, a plurality of messages comprising respective corresponding sets of data fields arranged in a predetermined format, to extract a corresponding data field from each message. The format is defined by format information stored in the system which indicates a name for each data field in said set. The method comprises: in response to a handle request, indicating the name of a required data field, from a component of the system, accessing the format information to determine the location of the required data field in said message, and supplying a handle, indicative of said location, to said component; and in response to subsequent parsing requests, each comprising the handle and said message, from said component, extracting the required data field from the message in each parsing request according to the location indicated by the handle."
>
> "[0010] A second aspect of the present invention provides message parsing apparatus for parsing a plurality of messages, comprising respective corresponding sets of data fields arranged in a predetermined format, in a message processing system, the apparatus comprising: memory for storing format information defining said predetermined format and

indicating a name for each data field in a said set; and a message parser responsive to a handle request, indicating the name of a required data field, from a component of the system to access the format information to determine the location of the required data field in said message, and to supply a handle, indicative of said location, to said component; the message parser being further responsive to subsequent parsing requests, each comprising the handle and a message, from said component to extract the required data field from the message in each parsing request according to the location indicated by the handle."

"[0013] A flexible message processing system should be capable of processing messages in a variety of different formats, and to this end a plurality of message parsers may be employed in the system, one for each of the different message formats. A fourth aspect of the present invention provides message parsing apparatus for parsing messages in a message processing system wherein the messages comprise respective sets of data fields and the data fields of each message are arranged in one of a plurality of predetermined formats, the apparatus comprising: memory for storing format information defining said predetermined formats and indicating a name for each data field in a said set; a plurality of message parsers, each adapted for parsing messages having a corresponding one of said formats; and a parsing manager for managing communications between the message parsers and at least one message processing application of the system; wherein each message parser is responsive to a handle request, indicating the name of a required data field, from the parsing manager to access the format information to determine the location of the required data field in a message in the corresponding format for that parser, and to supply a parsing handle, indicative of said location, to the parsing manager, and is further responsive to subsequent parsing requests from the parsing manager, each comprising the parsing handle and a message in said corresponding format, to extract the required data field from the message in each parsing request according to the location indicated by the parsing handle; and wherein the parsing manager is arranged such that, for a series of messages, comprising respective corresponding sets of data fields having the same one of said formats, which are received from said application and from each of which a corresponding data field is required, the parsing manager issues a said handle request to the parser corresponding to that format, and then, for each

message, issues a said parsing request to that parser, whereby the required data field is extracted from each message of the series."

Applicants submit that it should be apparent that Harrison et al., in paragraphs [0006] and [0010] is describing, in general a method and apparatus for parsing messages, while in paragraph [0013], is describing a message parsing apparatus comprising a plurality of message parsers for handling a respective plurality of different message formats. Before going further, Harrison et al. defines the term "parsing":

> "[0003] Parsing is the operation of extracting from a message the value corresponding to a specific name. This is performed by a message parser, typically implemented in software, to which messages are supplied by system applications for parsing. A message is supplied to the parser together with the name of the required data field. The parser identifies and extracts the required field from the message, returning the value so obtained to the requesting application."

Applicants therefore submit that Harrison et al. is only concerned with the parsing of the messages, and there is no disclosure or suggestion of "message means for extracting messages from the data stream, the messages containing the application data objects".

Claim 4 includes the limitation "wherein the message means removes redundant information from the messages extracted from the data stream", while claim 5 includes the limitation "wherein the message means removes, as the redundant information, header information of packets, including headers of transport stream packets or sections headers as used in compressed video data

transmission (MPEG2), or download-data-block headers as used in multimedia data (MHP)."

The Manor et al. publication discloses a system and method for producing an encapsulated multimedia packets, in which a protocol unwrapping module may unwrap the intercepted packet by "removing the header and removing redundant protocol specific coding". However, Applicants submit that Manor et al. does not supply that which is missing from Macrae et al. and Harrison et al., i.e., the "message means for extracting messages from the data stream, the messages containing the application data objects" as specifically set forth in, for example, claim 1.

Claim 6 includes the limitation "wherein the message means removes, as the redundant information, messages that are repeatedly transmitted, including messages repeatedly transmitted in a data carousel."

The Kostreski et al. patent discloses a digital entertainment terminal with channel mapping, which arguably discloses the removal of redundant programming. However, Applicants submit that Kostreski et al. does not supply that which is missing from Macrae et al., Harrison et al. and Manor et al., i.e., the "message means for extracting messages from the data stream, the messages containing the application data objects" as specifically set forth in, for example, claim 1.

In view of the above, Applicants believe that the subject invention, as claimed, is not rendered obvious by the prior art,

either individually or collectively, and as such, is patentable thereover.

Applicants believe that this application, containing claims 1-10, is now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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